

ABSTRACT OF THE DISCLOSURE

[0039] Transducers and methods of manufacturing transducers with at least one of environmental and electromagnetic protection are provided. Diced ultrasonic transducer stacks are covered with a shield layer or film. The shield layer is bonded to the transducer stack without adhesive. For example, a heat sealable amorphous surface is used to bond the shield layer to the ultrasound stack. The shield layer forms an environmental and/or electromagnetic barrier. Since adhesive is not used for bonding the shield layer, the kerfs are uniformly air filled.